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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,208	03/29/2004	Peter Chou	250809-1090	1401
24504 7590 06/01/2007 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			EXAMINER OSORIO, RICARDO	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 06/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/812,208

**Applicant(s)**

CHOU ET AL

**Examiner**

RICARDO L. OSORIO

**Art Unit**

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 1, 3, 4, 5, 6, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamane (US 2006/0061556) in view of Jung (6,657,560).

Regarding claim 1, Jamane teaches of a keyboard module comprising: a carrier device (Fig. 1, character, or ch., 1); a keyboard for entering text message (Fig. 1, ch. 51), the keyboard being mounted on the carrier device and including a plurality of keys (Fig. 1, chs. 55 and 57) ; and a navigator button mounted on the carrier device and located within the keys of the keyboard (Fig. 1, ch. 67).

However, Jamane does not specifically disclose that the navigator is disposed at one of the intersection regions of the rectangular array.

Jung teaches of a rectangular configuration for a rectangular text key array, where the navigation button is at an intersection region (see Fig. 8D).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the navigation button , as taught by Jung , in the device of Jamane because a change in shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. See **In re Dailey, 149 USPQ 47 (CCPA 1976)**.

Regarding claim 3, Jamane teaches of the navigator button has a cross-shaped configuration with four direction buttons (paragraph 39, it is clearly recognized that the four extremities are the directions of navigation) and an action button (Fig. 1, ch. 69), the direction buttons being located at four extremities of the navigator button (Fig. 1, ch. 67), respectively, and the action button being located at a center of the navigator button (Fig. 1, ch. 69).

Regarding claim 4, Jamane teaches of the keys of the keyboard have four keys each being located between two neighboring direction buttons (Fig. 1, ch. 57).

Regarding claim 5, Jamane teaches of the carrier device being a printed circuit board (Fig. 3, ch. 83).

Regarding claim 6, Jamane teaches of the direction buttons being integrally connected together (Fig. 1, ch. 67).

Regarding claims 8 and 11, Jamane teaches a plurality of application buttons located within the keys of the keyboard (Fig. 1, ch. 71).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 7, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamane in view of Miller (4,974,183).

Regarding claims 2 and 10, Jamane does not specifically teach that the direction buttons have a profile higher than that of the keys of the keyboard.

Miller teaches of keys at different heights (see Fig. 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have keys with different heights, as taught by Miller, in the device of Jamane as an aid to distinguishing the different keys, or group of keys.

Regarding claim 7, Jamane does not teach of having the direction buttons separated from each other.

Miller has the direction buttons separated from each other (see Fig. 1, chs. 52, 54, 56, and 58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the direction keys separated, instead of integrally connected, because by having the buttons separated, the user can more accurately identify with his fingers the button intended to be used.

Regarding claim 13, Jamane does not precisely teach that the keyboard is a QWERTY keyboard. Miller teaches of a QWERTY keyboard (see Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the QWERTY keyboard, as taught by Miller, in the device of Jamane because the use of QWERTY keyboards is overwhelmingly known in the art of keyboards.

3. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamane in view of applicant's admitted prior art (APA, hereafter).

Regarding claims 9 and 12, Jamane does not precisely teach of the plurality of application buttons being located outside and at a top of the keys of the keyboard.

APA teaches of the plurality of application buttons being located outside and at a top of the keys of the keyboard (see Figs. 1, 2A and 2B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the buttons being located outside and at a top of the keys of the keyboard, as taught by APA, in the device of Jamane because, by being on top of the rest of the keyboard keys, they can more easily be identified and avoid inadvertent actuations.

4. Claims 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamane in view of Miller (4,974,183) ) and further in view of Jung (6,657,560).

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Regarding claim 14, further, Jamane teaches of a handheld electronic device comprising a housing (Fig. 1, ch. 1); a display located at an upper portion of the housing (Fig. 1, ch.33) and a keyboard located at a lower portion of the housing (Fig. 1, ch. 51); and a navigator button located within the keyboard (Fig. 1, ch. 67).

However, Jamane does not precisely teach that the keyboard is a QWERTY keyboard.

Miller teaches of a QWERTY keyboard (see Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the QWERTY keyboard, as taught by Miller, in the device of Jamane because the use of QWERTY keyboards is overwhelmingly known in the art of keyboards.

Also, Jamane does not specifically disclose that the navigator is disposed at one of the intersection regions of the rectangular array.

Jung teaches of a rectangular configuration for a rectangular text key array, where the navigation button is at an intersection region (see Fig. 8D).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the navigation button , as taught by Jung , in the device of Jamane and Miller because a change in shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. See **In re Dailey, 149 USPQ 47 (CCPA 1976)**.

As to claim 15, see claim 3 above.

As to claim 16, further, see claim 8 above.

As to claims 17 and 20, see claim 6 above.

As to claim 19, further, Jamane teaches the application buttons located between the keyboard and the display (see Fig. 1, ch. 71).

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As to claim 18 and 21, Jamane does not teach of having the direction buttons separated from each other.

Miller has the direction buttons separated from each other (see Fig. 1, chs. 52, 54, 56, and 58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the direction keys separated, instead of integrally connected, because by having the buttons separated, the user can more accurately identify with his fingers the button intended to be used.

As to claim 22, further, see claims 2 and 10.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is 571-272-7676. The examiner can normally be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

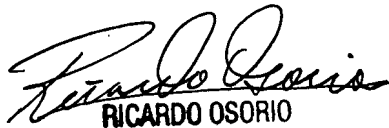
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or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

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RICARDO OSORIO  
PRIMARY EXAMINER  
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RLO  
May 29, 2007